

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figures 1-15.

Enclosure: Replacement sheets

REMARKS

Claims 1-37 were presented for examination. Upon entry of this paper, claims 1, 2, 4, 6, 7, 12, 14, 15, 17, 19, 20, 22, 24, 25, 30 and 32 are amended to address informalities. No new matter has been added. The drawings and the specification are amended to address issues raised by the Examiner. Applicants contend that amended claims are patentable and in condition for allowance as discussed below. Applicants respectfully request reconsideration of the outstanding objections and rejections in view of the comments set forth below.

I. Summary of Objections and Rejections

The drawings are objected to comply with 37 C.F.R. 1.84(p)(5) because they do not include reference signs mentioned in the description.

The specification is objected to because of informalities.

Claims 2, 6, 20 and 24 are objected to because of informalities.

Claims 1-3 and 19-21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1-14 and 19-32 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by The MathWorks, Inc., "Real Time WorkShop For Use With Simulink."

II. Objections to the Drawings

The Examiner states that Figures 1-14 are disclosed in the Background of the Invention and should be designated by a legend such as --Prior Art-- because only that which is old is illustrated, (Office Action, p.2, §3).

Figures 1-14 are amended to include the legend "Prior Art."

The drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they do not include following reference signs mentioned in the description: Figure 4: 440, 442, 444,

445, 446, 448, 449, 450, 452, 454; Figure 5: 460, 462, 464, 466, 468; Figure 6A: 481, 482, 484, 486, 488, 490, 492, 494, 496, 498, 111 and Figure 11B: 259, (Office Action, p. 2, § 4).

The paragraph starting on line 33, page 18 of the Background describes Figure 4. The paragraph is amended to include correct references shown on Figure 4. References 440-452 are replaced with references 40-52 as shown on Figure 4.

The paragraph starting on line 10, page 20 of the Background describes Figure 5. The paragraph is amended to include correct references shown on Figure 5. References 460-468 are replaced with references 60-68 as shown on Figure 5.

The paragraph starting on line 5, page 21 of the Background describes Figure 6A. The paragraph is amended to include correct references shown on Figure 6A. References 481-496 are replaced with references 81-96 as shown on Figure 6A.

Figure 15 is amended to correct the multiple use of reference 424. The amended figure has reference 428 for pointing device and 424 for network.

Figure 6A is amended to include previously omitted references 81 and 111, mentioned on the second paragraph, page 21 of the Background.

Figure 11B is amended to include previously omitted reference 259.

The drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 8: 180, 182 and Figure 13: 236, (Office Action, p. 2, § 5).

Figure 8 is amended to delete redundant references 180 and 182.

The paragraph starting on line 31, page 30 of the Background describes Figure 13. The paragraph is amended to include previously omitted reference 236.

Applicants respectfully request that the Examiner reconsider and withdraw the objection to the drawings in view of the amendments made herein.

III. Objections to the Specification

The Examiner states that page 20, line 19 refers to element 66 in Figure 5 that points to an element in the figure, however, it appears that the elements in the figure were mis-labeled and element 66 should be element 466, (Office Action, p. 3, § 8).

As explained above, the paragraph starting on line 10, page 20 of the Background is amended to include correct references shown on Figure 5. References 460-468 are replaced with references 60-68 as shown on Figure 5.

The Examiner states that page 40, lines 33-34 refer to element 16' in Figure 15 and should refer to element 416', (Office Action, p. 3, § 9).

The paragraph starting on line 32, page 40 of the Detailed Description is amended to include correct references shown on amended Figure 15. Reference 16' is replaced with reference 416' as shown on amended Figure 15.

The paragraph starting on line 1, page 40 of the Detailed Description is amended to correct the multiple use of the reference 426. The amended paragraph describes reference 426 as a server and reference 428 as pointing device, as shown on amended Figure 15.

The Examiner states that page 42, lines 6-7 refer to elements 36, 38 and 32 in Figure 16 and should refer to elements 436, 438 and 432, (Office Action, p. 3, § 10).

The paragraph starting on line 3, page 42 of the Detailed Description is amended to include correct references shown on Figure 16. References 36 and 38 are replaced with references 436 and 438.

The paragraph starting on line 8, page 42 of the Detailed Description is amended to include correct references shown on Figure 16. Reference 32 is replaced with reference 432.

Applicants respectfully request that the Examiner reconsider and withdraw the objection to the specification.

IV. Claim Objections

Claims 2, 6, 20 and 24 are objected because they recite “the step” whereas it would be better if written “a step,” (Office Action, p.3, § 11-12).

Claims 2, 6, 20 and 24 are amended to remove the language “the step of.” Applicants kindly request the Examiner to withdraw the objection to claims 2, 6, 20, and 24.

V. Rejections under 35.U.S.C. § 112, second paragraph

Claims 1-3 and 19-21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing particularly point out and distinctly claim subject matter which applicant regards as the invention, (Office Action, p. 4, §14).

Claims 1 and 19 are amended to replace the language “the block diagram” with “a block diagram.” Applicants respectfully submit that the amended claims 1 and 19 comply with 35 U.S.C. § 112. No amendments have been made to distinguish the application over the prior art.

Applicants kindly request the Examiner reconsider and withdraw the rejection of claims 1 and 19 under U.S.C §112.

Claims 2-3 depend from claim 1 and meet the requirements of 35 U.S.C. § 112 for at least the reasons presented above with respect to claim 1. Applicants kindly request that the rejection to claims 2-3 under 35 U.S.C. § 112 be withdrawn.

Claims 20-21 depend from claim 19 and meet the requirements of 35 U.S.C. § 112 for at least the reasons presented above with respect to claim 19. Applicants kindly request that the rejection to claims 20-21 under 35 U.S.C. § 112 be withdrawn.

VI. Rejections under 35.U.S.C. § 101

Claims 1-14 and 19-32 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter, (Office Action, p.4, §17). Applicants respectfully traverse each of these rejections and contend that each of these claims recite statutory subject matter under 35 U.S.C. § 101.

The Examiner states that “Claims 1-14 recite a manipulation of abstract ideas and produce no concrete, useful or tangible result. Claims 19-32 are directed to non-functional descriptive material since the claims recite a manipulation of abstract ideas and produce no concrete, useful or tangible result” (Office Action, p. 4, § 17). Applicants respectfully disagree with the position taken by the Examiner with respect to claims 1-14 and 19-32. Claims 1-14 fall within the statutory category of a “new and useful process.” Claims 19-32 fall within the statutory category of a “manufacture.”

Claim 1 recites a method comprising “instructing a first function to invoke a portion of a first block from a block diagram executing at a first rate and instructing a second function to invoke a portion of a second block from the block diagram executing at a second rate, wherein each of said functions unconditionally define an execution path for each of the rates.” It should be appreciated that “instructing a first function to invoke a portion of a first block from a block diagram executing at a first rate and instructing a second function to invoke a portion of a second block from the block diagram executing at a second rate,” avoids the need for conditional statements employed in “rate guarding,” as discussed in the present application at page 35, lines 5-17. Claim 1 recites that “each of said functions unconditionally define an execution path for each of the rates.” The absence of the need for conditional statements, such as found in the prior art rate guarding, avoids the need to evaluate sets of logical predicates at run time. The logical predicates consume code memory space and moreover, their run time evaluation reduces throughput of the block diagram model. Consequently, the invention of claim 1 may increase throughput and significantly benefit block diagram models modeling real-time events. See present application, p. 45, lines 6-12. Another benefit is that, multiple blocks with the same operating rate are able to call the corresponding function without the need to have a full set of coded functions for all the rates duplicated in memory for each task. As a result, tasks share the generated code in real-time. See present application, p. 45, lines 12-15.

In view of the above reasons, Applicants respectfully submit that claim 1 produces a concrete, useful or tangible result and kindly request that the rejection to claim 1 under 35 U.S.C. § 101 be withdrawn.

Claims 2-3 depend from claim 1 and meet the requirements of 35 U.S.C. § 101 for at least the reasons presented above with respect to claim 1. Applicants kindly request that the rejection to claims 2-3 under 35 U.S.C. § 101 be withdrawn.

The arguments presented above with respect to claim 1 are relevant to addressing the rejection of claim 4, which discloses “a first group of systems process data at a first rate and a second group of systems process data at a second rate; generating a first set of functions, the first set of functions being associated with the first group of systems” and “generating a second set of functions, the second set of functions being associated with the second group of systems.” Claims 5-6 depend from claim 4. Claim 1 recites “a first function to invoke a portion of a first block from a block diagram executing at a first rate” and “a second function to invoke a portion of a second block from the block diagram executing at a second rate.” Claim 4 is similar to claim 1 in the sense that claim 4 recites “a first set of functions” instead of “a first function” for a first rate and “a second set of functions” instead of “a second function” for a second rate. In view of the above reasons regarding claim 1, Applicants respectfully submit that the subject matter of claims 4-6 fulfills the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 4-6 under 35 U.S.C. § 101 be withdrawn.

The arguments presented above with respect to claim 1 are relevant to addressing the rejection of claim 7, which recites “identifying portions of the block by a rate of operation, and grouping code for the block into a plurality of functions, wherein there exists at least one function for each portion of the block identified.” Claims 8-11 depend from claim 7. Similarly to claim 1, claim 7 concerns rate grouping. In view of the above reasons regarding claim 1, Applicants respectfully submit that the subject matter of claims 7-11 fulfills the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 7-11 under 35 U.S.C. § 101 be withdrawn.

The arguments presented above with respect to claim 1 are relevant to addressing the rejection of claim 12, which discloses “providing a block having two or more components that execute at different rates; separating generated code for the block into two or more sets of code statements, with one set of code statements for each rate.” Claims 13-14 depend from claim 12. Similarly to claim 1, claim 12 concerns rate grouping. In view of the above reasons regarding claim 1, Applicants respectfully submit that the subject matter of claims 12-14 fulfills the

requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 12-14 under 35 U.S.C. § 101 be withdrawn.

Claim 19 is a medium claim that parallels claim 1. Claims 20-21 depend from claim 19 and as such incorporate each and every element of claim 19. Claims 19-21 are directed to a manufacture that have practical application in the technological arts and thus, are statutory. In view of the above comments regarding claim 1, Applicants respectfully submit that the subject matter of claims 19-21 fulfill the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 19-21 under 35 U.S.C. § 101 be withdrawn.

Claim 22 is a medium claim that parallels claim 4. Claims 23-24 depend from claim 22 and as such incorporate each and every element of claim 22. Claims 22-24 are directed to a manufacture that have practical application in the technological arts and thus, are statutory. In view of the above comments regarding claim 4, Applicants respectfully submit that the subject matter of claims 22-24 fulfill the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 22-24 under 35 U.S.C. § 101 be withdrawn.

Claim 25 is a medium claim that parallels claim 7. Claims 26-29 depend from claim 25 and as such incorporate each and every element of claim 25. Claims 25-29 are directed to a manufacture that has practical application in the technological arts and thus, are statutory. In view of the above comments regarding claim 7, Applicants respectfully submit that the subject matter of claims 25-29 fulfill the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 25-29 under 35 U.S.C. § 101 be withdrawn.

Claim 30 is a medium claim that parallels claim 12. Claims 31-32 depend from claim 30 and as such incorporate each and every element of claim 30. Claims 30-32 are directed to a manufacture that have practical application in the technological arts and thus, are statutory. In view of the above comments regarding claim 12, Applicants respectfully submit that the subject matter of claims 30-32 fulfill the requirements of 35 U.S.C. § 101 and kindly request that the rejection to claims 30-32 under 35 U.S.C. § 101 be withdrawn.

VII. Rejections under 35.U.S.C. § 102(b)

Claims 1-38 are rejected under 35.U.S.C. § 102(b) as being anticipated by The Mathworks, Inc., (“Real Time Workshop For Use With Simulink,” User’s Guide, Version 3, January 1999), hereafter “RTW,” (Office Action, p. 5, § 19). Applicants respectfully traverse these rejections. For purposes of clarity, the separate claim sets involved in the rejection will be discussed below.

A. Novelty of Claims 1-6

Claims 1-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by RTW. Applicants respectfully traverse this rejection.

Claim 1 recites “instructing a first function to invoke a portion of a first block from a block diagram executing at a first rate; and instructing a second function to invoke a portion of a second block from the block diagram executing at a second rate.” RTW does not disclose “instructing a first function to invoke a portion of a first block from a block diagram executing at a first rate and instructing a second function to invoke a portion of a second block from the block diagram executing at a second rate, wherein each of said functions unconditionally define an execution path for each of the rates” as disclosed by claim 1. In particular, RTW discloses multiple invocations of the same functions with different task identifiers, (RTW, p. 6-6, last ¶). For example, the language identified by the Examiner as disclosing this feature refers to the use of the same function, i.e., *ModelOutputs* and *ModelUpdate*, for different operating rates, i.e., *tid=0* and *tid=1*, (Office Action, p. 5, § 20). The technique described by RTW uses task identifiers and invokes the same function several times. The language identified by the Examiner refers to a pseudocode (RTW, p. 6-6) that recites a function *ModelOutputs* (*tid=i*), where *i* is equal to the number of task identifies. The pseudocode invokes the function *ModelOutputs* for each rate. This means that the function *ModelOutputs* contains the code for all rates of the model, yet it is executed in a given task, only the code corresponding to the task’s rate is executed.

For at least these reasons, the portions of RTW cited by the Examiner with respect to the limitations of claim 1 do not support a valid 35 U.S.C. §102(b) rejection because RTW does not

disclose at least “a first function executing at a first rate and a second function executing at a second rate and the functions unconditionally define an execution path for each of the rates.”

In view of the above reasons, Applicants respectfully submit that the subject matter of claim 1 fulfills the requirements of 35 U.S.C. § 102(b) and kindly request that the rejection to claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Claims 2-3 depend from claim 1 and meet the requirements of 35 U.S.C. § 102(b) for at least the reasons presented above with respect to claim 1. Applicants kindly request that the rejection to claims 2-3 under 35 U.S.C. § 102(b) be withdrawn.

The arguments presented above with respect to claim 1 are relevant to addressing the rejection of claim 4, which discloses “a first group of systems process data at a first rate and a second group of systems process data at a second rate; generating a first set of functions, the first set of functions being associated with the first group of systems” and “generating a second set of functions, the second set of functions being associated with the second group of systems.”

Claims 5-6 depend from claim 4. In view of the above reasons regarding claim 1, Applicants respectfully submit that the subject matter of claims 4-6 fulfills the requirements of 35 U.S.C. § 102(b) and kindly request that the rejection to claims 4-6 under 35 U.S.C. § 102(b) be withdrawn.

B. Novelty of Claims 7-11

Claims 7-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by RTW. Applicants respectfully traverse the rejection and provide additional remarks as to the patentability of the pending claims over the cited reference. RTW does not disclose the limitation “identifying portions of the block by a rate of operation, and grouping code for the block into a plurality of functions, wherein there exists at least one function for each portion of the block identified,” as required by claim 7.

The language identified by the Examiner as disclosing this feature refers to code that assigns each block a task identifier to associate it with the task that executes at its sample rate, (Office Action, p. 7-8, § 26-30). As mentioned above, task identifiers result in multiple invocations of the same function because the function contains the code for all rates of the

model. Claim 7 recites “grouping code for the block into a plurality of functions, wherein there exists at least one function for each portion of the block identified.” Instead of having one function with multiple task identifiers, claim 7 recites a plurality of functions “wherein there exists at least one function for each portion of the block identified.”

In view of the above reasons, Applicants respectfully submit that the subject matter of claim 7 fulfills the requirements of 35 U.S.C. § 102(b) and kindly request that the rejection to claim 7 under 35 U.S.C. § 102(b) be withdrawn.

Claims 8-11 depend from claim 7 and meet the requirements of 35 U.S.C. § 102(b) for at least the reasons presented above with respect to claim 7. Applicants kindly request that the rejection to claims 8-11 under 35 U.S.C. § 102(b) be withdrawn.

C. Novelty of Claims 12-14

Claims 12-14 are rejected under 35 U.S.C. § 102(b) as being described in RTW. Applicants respectfully traverse the rejection because RTW does not disclose “separating generated code for the block into two or more sets of code statements, with one set of code statements for each rate,” as required by claim 12.

The language identified by the Examiner as disclosing this feature refers to using Simulink in building models with blocks having different sampling times, i.e., building a mixed-rate system, (Office Action, p. 8, § 31-33). The limitation of “separating generated code for the block into two or more sets of code statements, with one set of code statements for each rate” is not disclosed for models with multiple sample rates described in RTW, (RTW, § 7).

In view of the above reasons, Applicants respectfully submit that the subject matter of claim 12 fulfills the requirements of 35 U.S.C. § 102(b) and kindly request that the rejection to claim 12 under 35 U.S.C. § 102(b) be withdrawn.

Claims 13-14 depend from claim 12 and meet the requirements of 35 U.S.C. § 102(b) for at least the reasons presented above with respect to claim 12. Applicants kindly request that the rejection to claims 13-14 under 35 U.S.C. § 102(b) be withdrawn.

D. Novelty of Claims 15-18

Claims 15-18 are rejected under 35 U.S.C. § 102(b) as being described in RTW. Applicants respectfully traverse the rejection and provide additional remarks as to the patentability of the pending claims over the cited reference. RTW does not disclose “generating code from the multi-rate block diagram model, the generated code having one function for each identified operating rate, wherein each of the functions provides implicit identification of one of the identified plurality of operating rates per groups of blocks in the multi-rate block diagram model,” as required by claim 15.

The language identified by the Examiner as disclosing this feature refers to executing multitasking models in Simulink, (Office Action, p. 9-11, § 34-40). In cases where the continuous part of a model executes at a rate that is different from the discrete part, or a model has blocks with different sample rates, the code assigns each block a task identifier (tid) to associate it with the task that executes at its sample rate. Having different functions for each identified operating rate is not disclosed in RTW, (RTW, p. 6-18, ¶ 3).

RTW recites “The tid (task identifier) parameter identifies the task that in turn indicates which sample times are active allowing you to conditionally update states of only active blocks. This routine is invoked by the run-time interface,” (RTW, p. 6-18, ¶ 3). This definition describes the use of task identifiers for a given function. The function has the code for all the rates of the model, as opposed to having “one function for each identified operating rate,” as required by claim 15. Furthermore, the definition describes conditional execution. Conditional execution is achieved using sets of logical predicates that are evaluated at runtime. The predicates consume code memory space and their runtime evaluation reduces throughput. Claim 15 recites one function for each identified operating rate. RTW fails to disclose this feature of claim 15.

In view of the above reasons, Applicants respectfully submit that the subject matter of claim 15 fulfills the requirements of 35 U.S.C. § 102(b) and kindly request that the rejection to claim 15 under 35 U.S.C. § 102(b) be withdrawn.

Claims 16-18 depend from claim 15 and meet the requirements of 35 U.S.C. § 102(b) for at least the reasons presented above with respect to claim 15. Applicants kindly request that the rejection to claims 16-18 under 35 U.S.C. § 102(b) be withdrawn.

E. Novelty of Claims 19-21

Claim 19 is a medium claim that parallels claim 1. Claims 20-21 depend from claim 19 and as such incorporate each and every element of claim 19. In view of the above comments regarding claim 1, Applicants respectfully submit that claims 19-21 are patentable over RTW and kindly request that the rejection to claims 19-21 under 35 U.S.C. § 102(b) be withdrawn.

F. Novelty of Claims 22-24

Claim 22 is a medium claim that parallels claim 4. Claims 23-24 depend from claim 22 and as such incorporate each and every element of claim 22. In view of the above comments regarding claim 4, Applicants respectfully submit that claims 23-24 are patentable over RTW and kindly request that the rejection to claims 22-24 under 35 U.S.C. § 102(b) be withdrawn.

G. Novelty of Claims 25-29

Claim 25 is a medium claim that parallels claim 7. Claims 26-29 depend from claim 25 and as such incorporate each and every element of claim 25. In view of the above comments regarding claim 7, Applicants respectfully submit that claims 26-29 are patentable over RTW and kindly request that the rejection to claims 25-29 under 35 U.S.C. § 102(b) be withdrawn.

H. Novelty of Claims 30-32

Claim 30 is a medium claim that parallels claim 12. Claims 31-32 depend from claim 30 and as such incorporate each and every element of claim 30. In view of the above comments regarding claim 12, Applicants respectfully submit that claims 31-32 are patentable over RTW and kindly request that the rejection to claims 30-32 under 35 U.S.C. § 102(b) be withdrawn.

I. Novelty of Claims 33-38

Claims 33-38 are rejected under 35 U.S.C. § 102(b) as being described in RTW. Applicants respectfully traverse the rejection and provide additional remarks as to the

patentability of the pending claims over the cited reference. RTW does not disclose “a code generation tool for generating code from the block diagram model, the code including one function for the first rate and one function for the second rate,” as required by claim 33. Having one function for the first rate and one function for the second rate is not disclosed in RTW.

The language identified by the Examiner as disclosing this feature refers to code generation where the generated code is by default highly optimized and fully commented C code that can be generated from any Simulink model, (RTW, p. 1-4, ¶ 2). The reference does not disclose code including one function for the first rate and one function for the second rate, as required by claim 33.

In view of the above reasons, Applicants respectfully submit that claim 33 is patentable over RTW and kindly request that the rejection to claim 33 under 35 U.S.C. § 102(b) be withdrawn.

Claims 34-38 depend from claim 33 and meet the requirements of 35 U.S.C. § 102(b) for at least the reasons presented above with respect to claim 33. Applicants kindly request that the rejection to claims 34-38 under 35 U.S.C. § 102(b) be withdrawn.

CONCLUSION

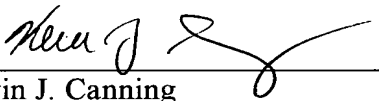
In view of the above comments, Applicants believe the pending application is in condition for allowance and urge the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-055. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

In view of the above remarks, Applicants believe the pending application is in condition for allowance.

Dated: December 5, 2006

Respectfully submitted,

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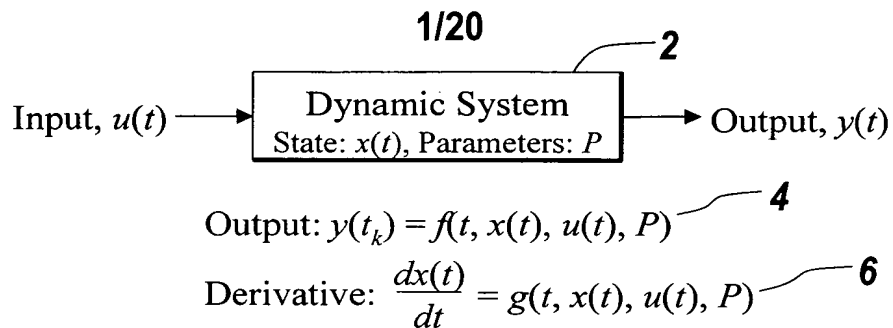


Fig. 1A

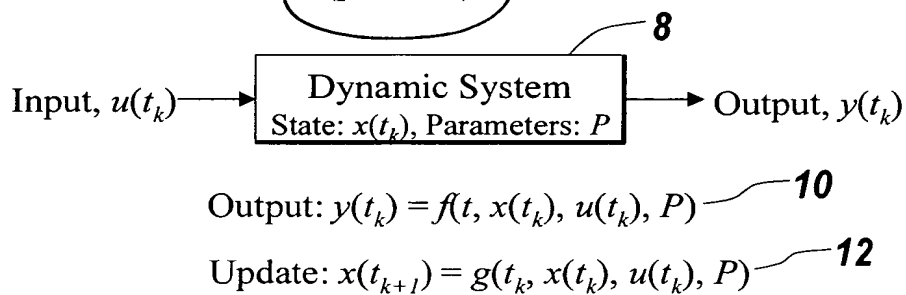


Fig. 1B

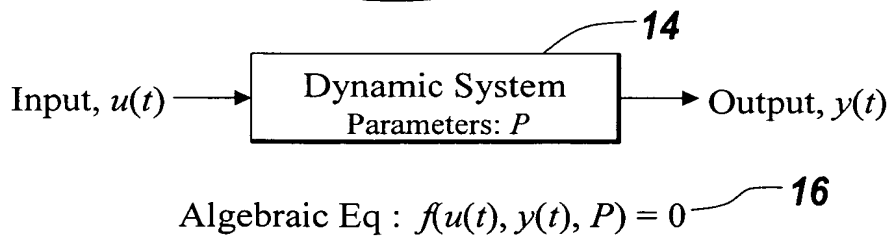


Fig. 1C

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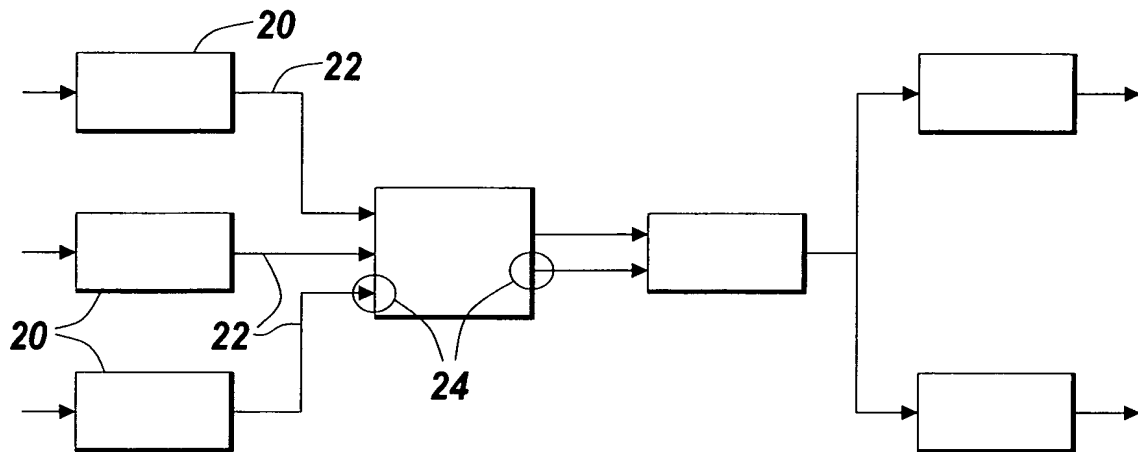


Fig. 2
(prior art)

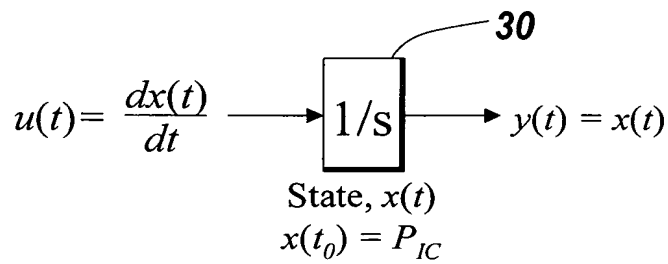


Fig. 3
(prior art)

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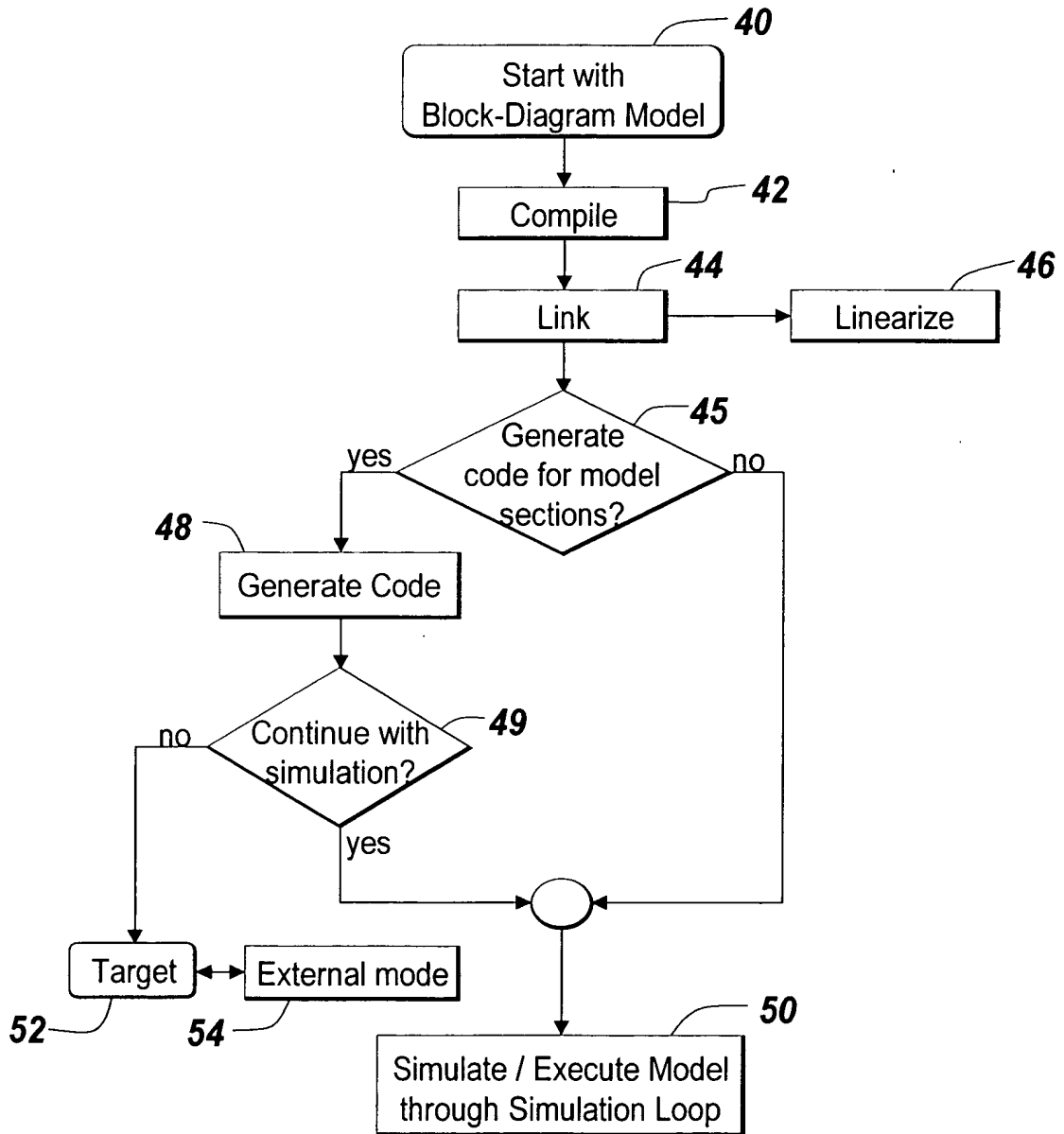


Fig. 4
(prior art)

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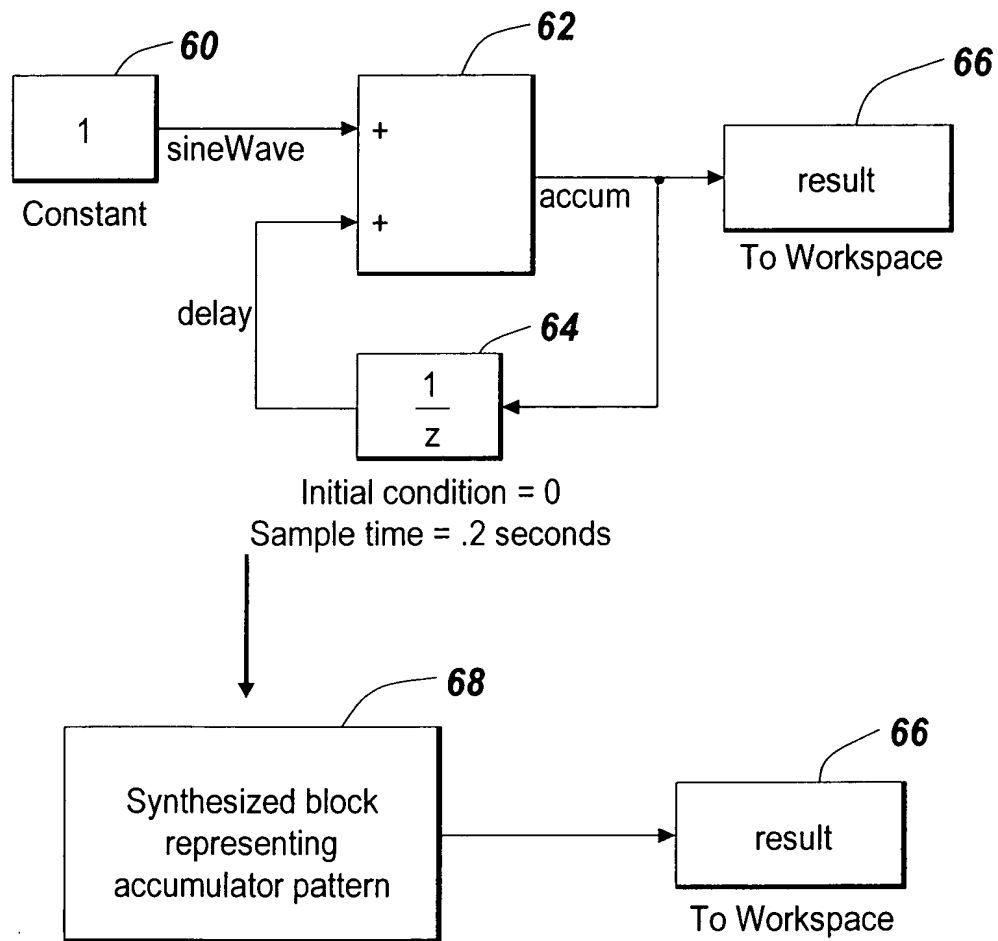


Fig. 5
(prior art)

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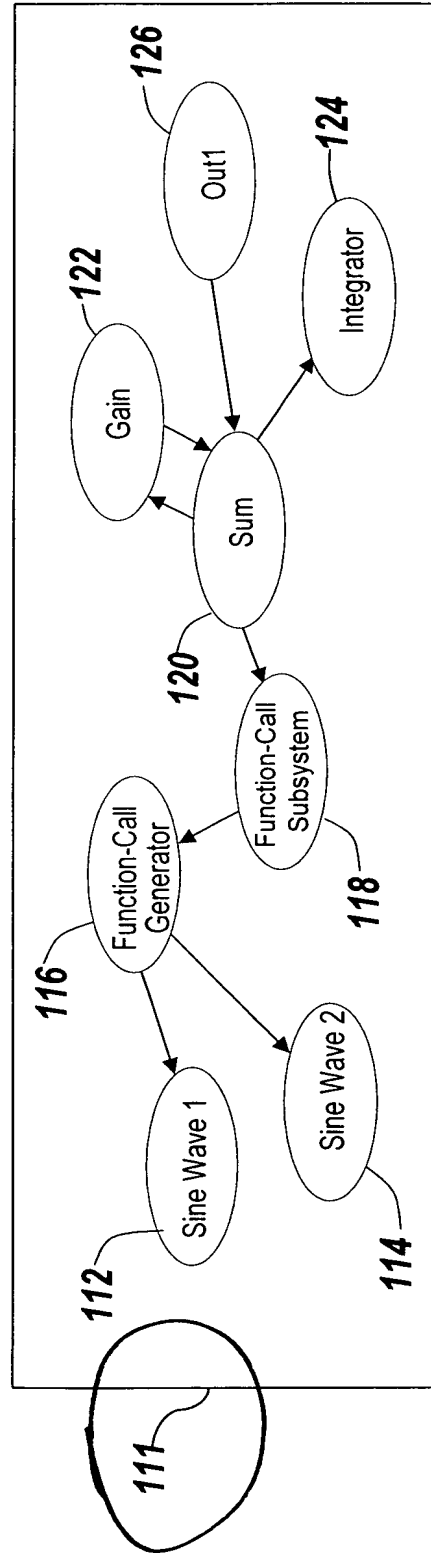
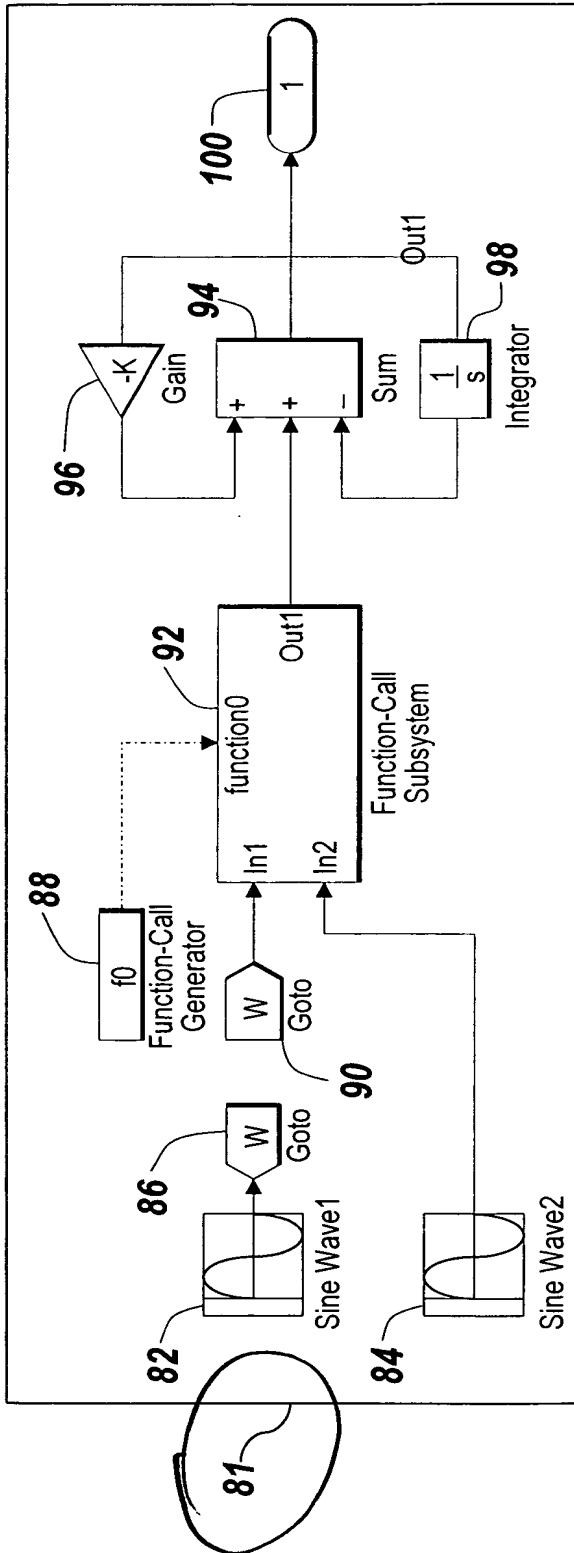


Fig. 6A
(prior art)

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Sorted List:

128

0:0 Sine Wave 1
0:1 Sine Wave 2
0:2 Function-Call Generator
0:3 Function-Call Subsystem
0:4 Integrator
0:5 Gain (algebraic id 0#1)
0:6 Sum (algebraic variable for id 0#1)
0:7 Out1

Fig. 6B
(prior art)

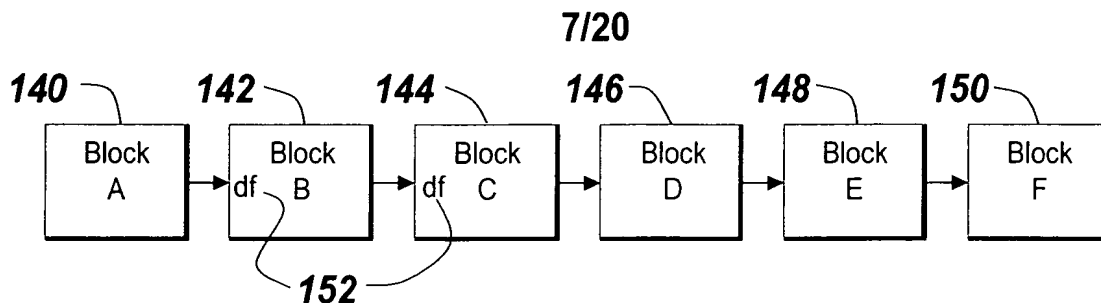


Fig. 7A
(prior art)

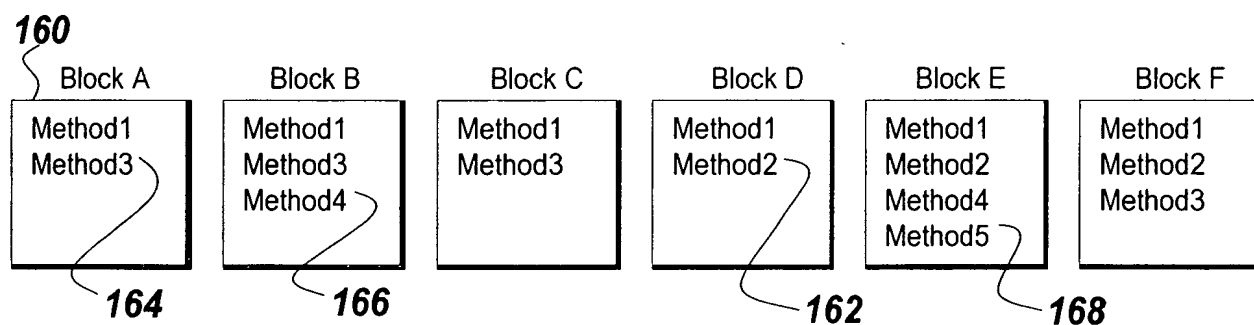


Fig. 7B
(prior art)

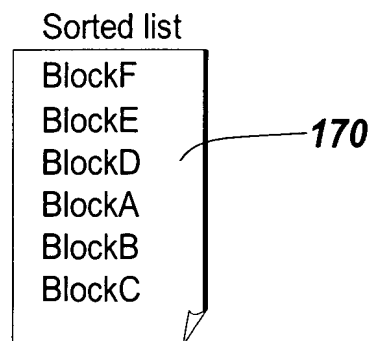


Fig. 7C
(prior art)

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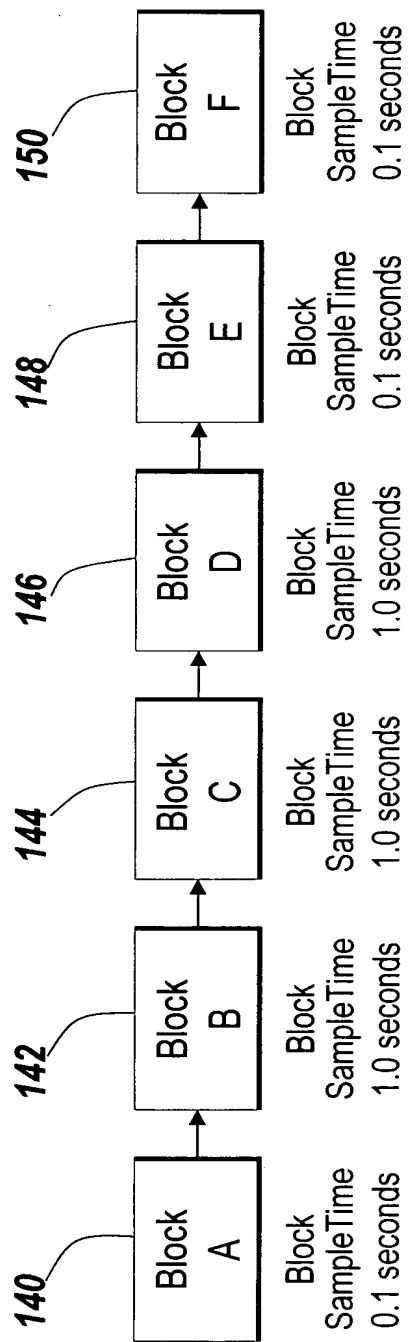


Fig. 8
(prior art)

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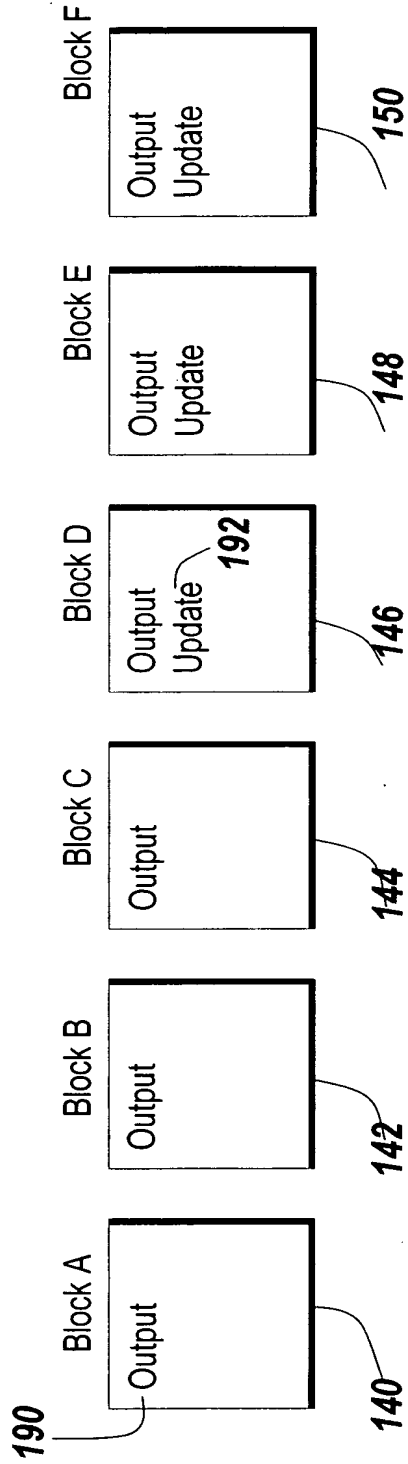


Fig. 9
(prior art)

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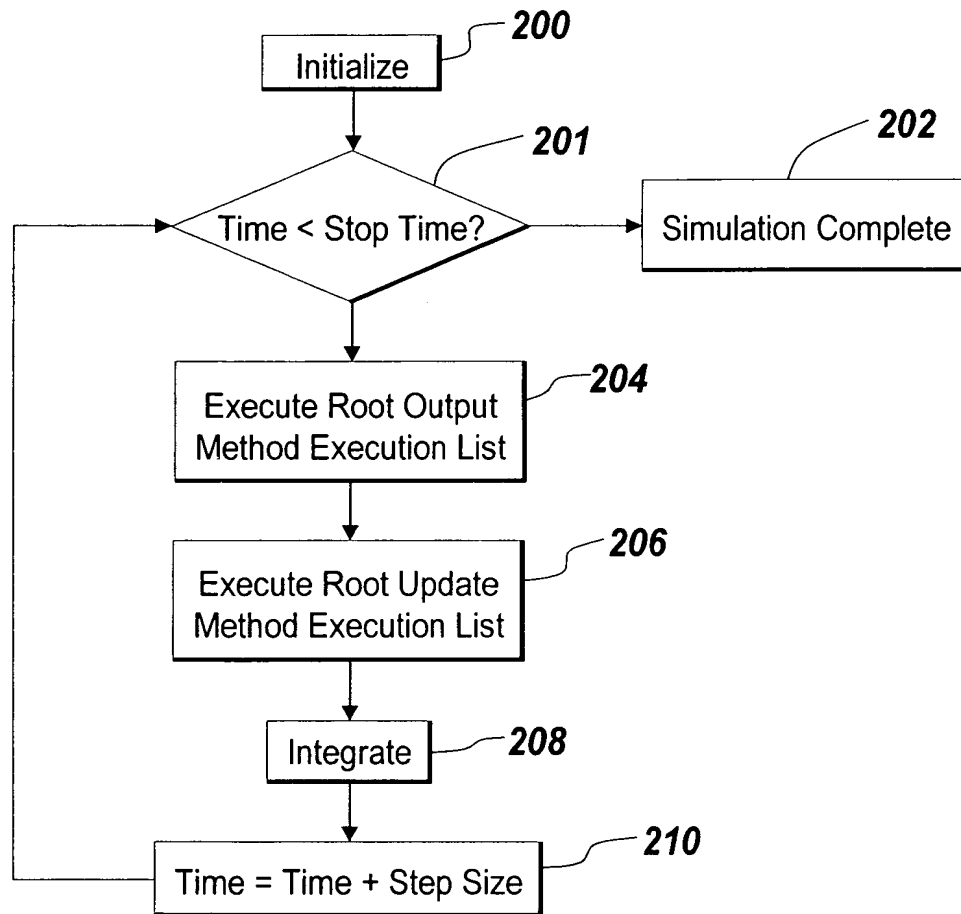


Fig. 10
(prior art)

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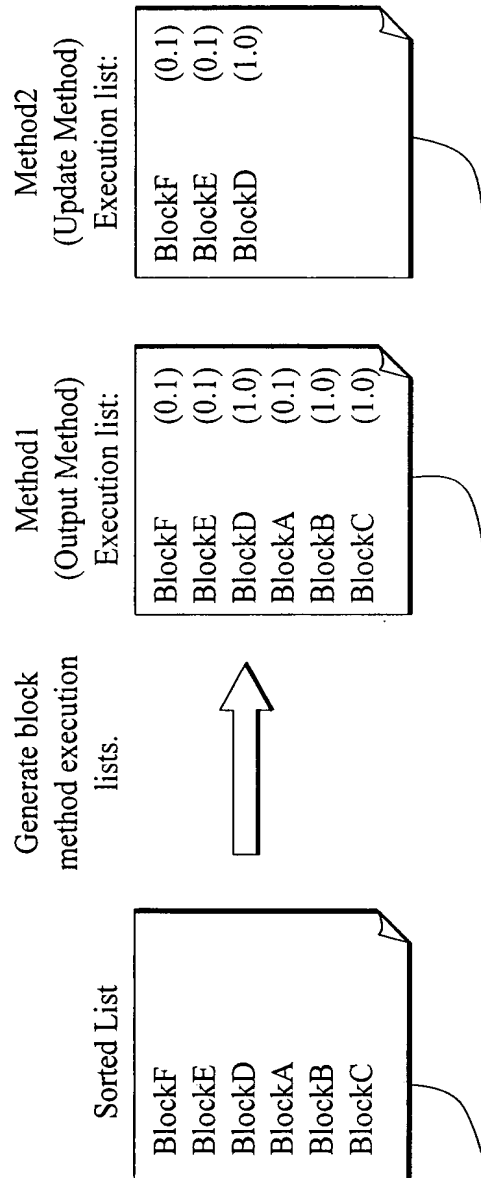
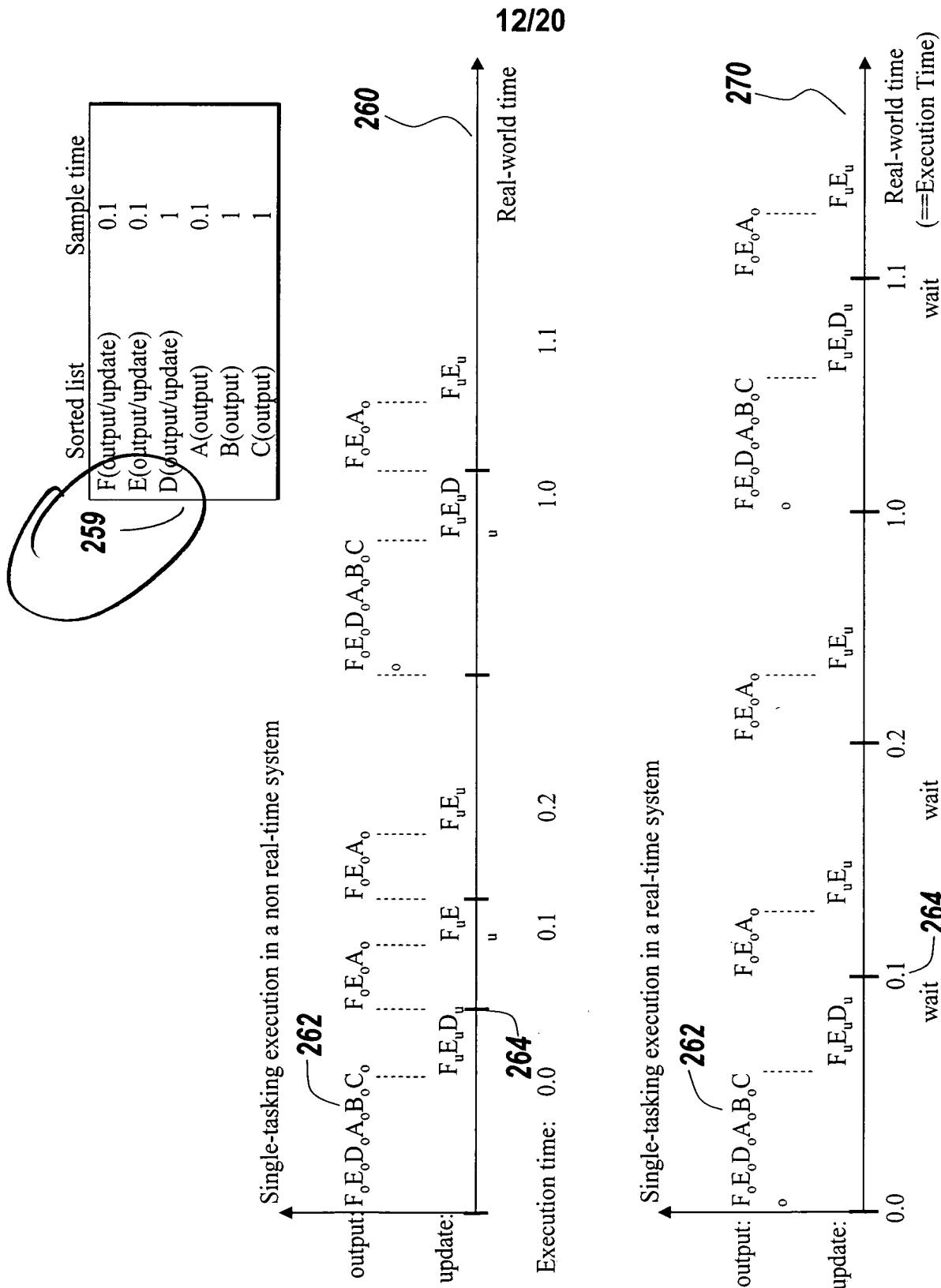


Fig. 11A
(prior art)



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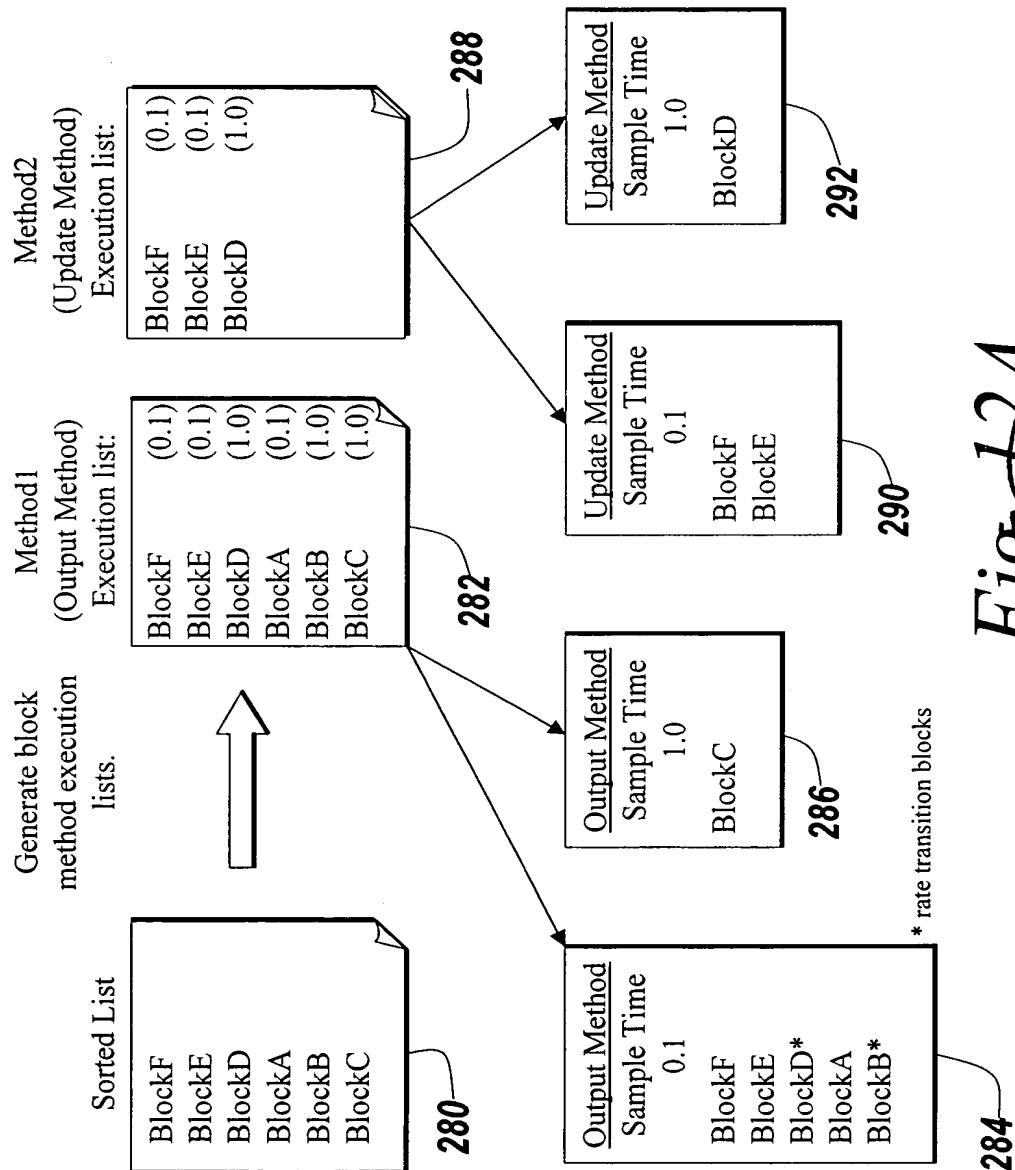


Fig. 12A
(prior art)

Sorted list	Sample time
F(output/update)	0.1
E(output/update)	0.1
D(output/update)	1 promoted to 0.1 task
A(output)	0.1
B(output)	1 promoted to 0.1 task
C(output)	1

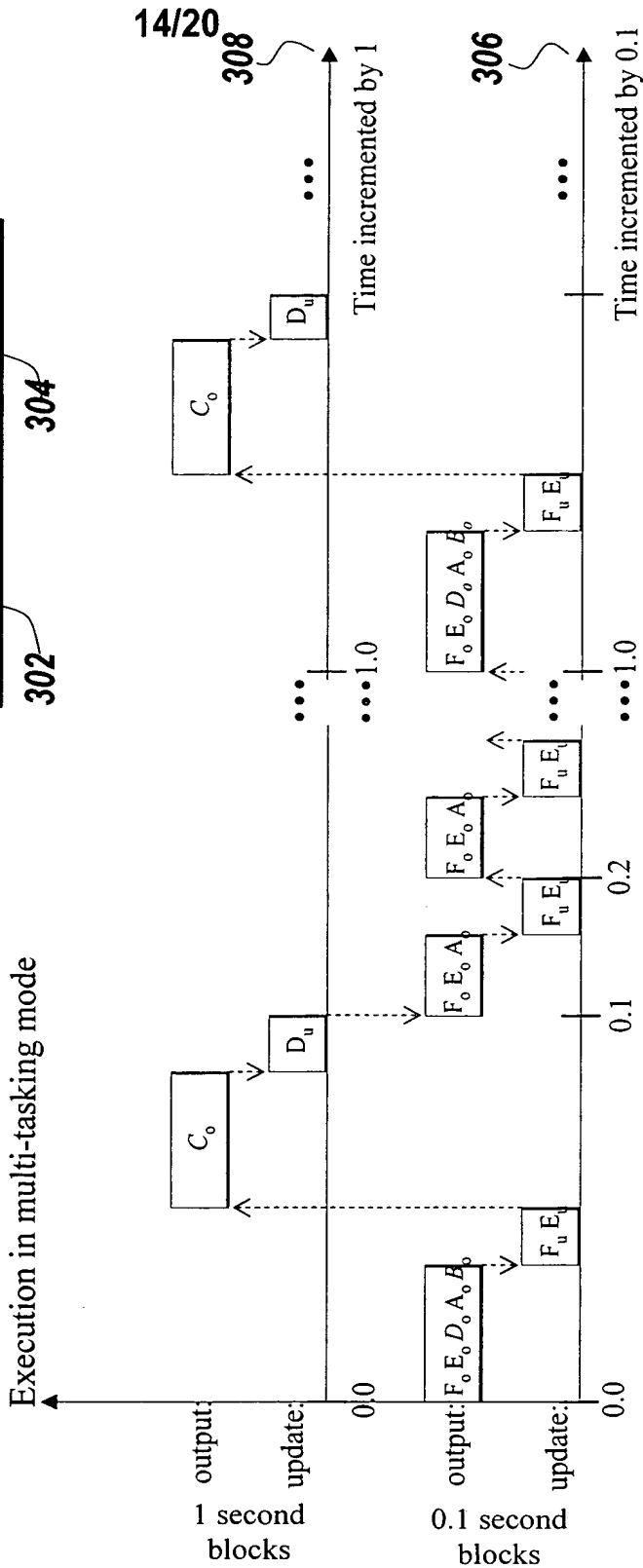


Fig. 12B
(prior art)

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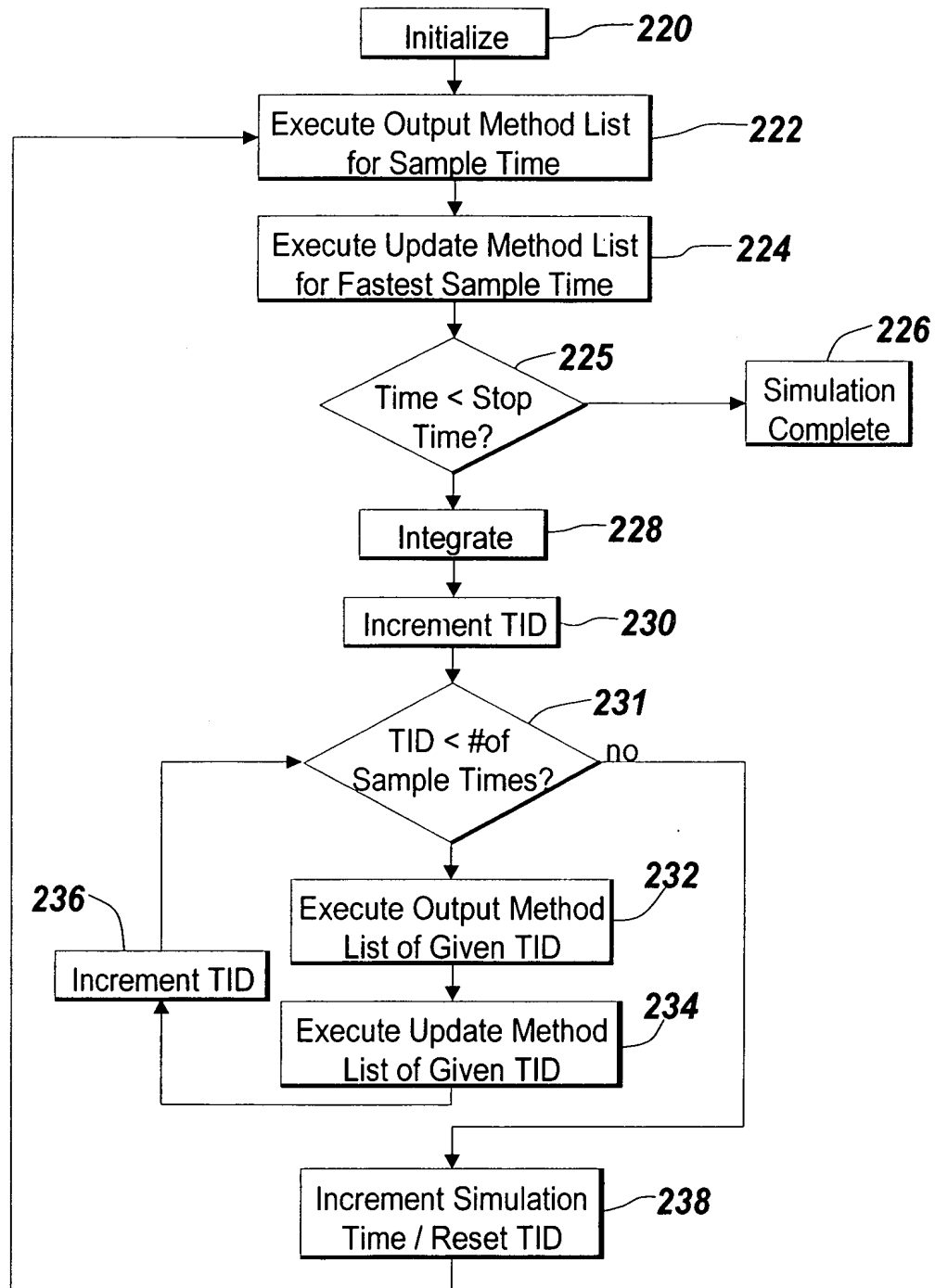


Fig. 13

(prior art)

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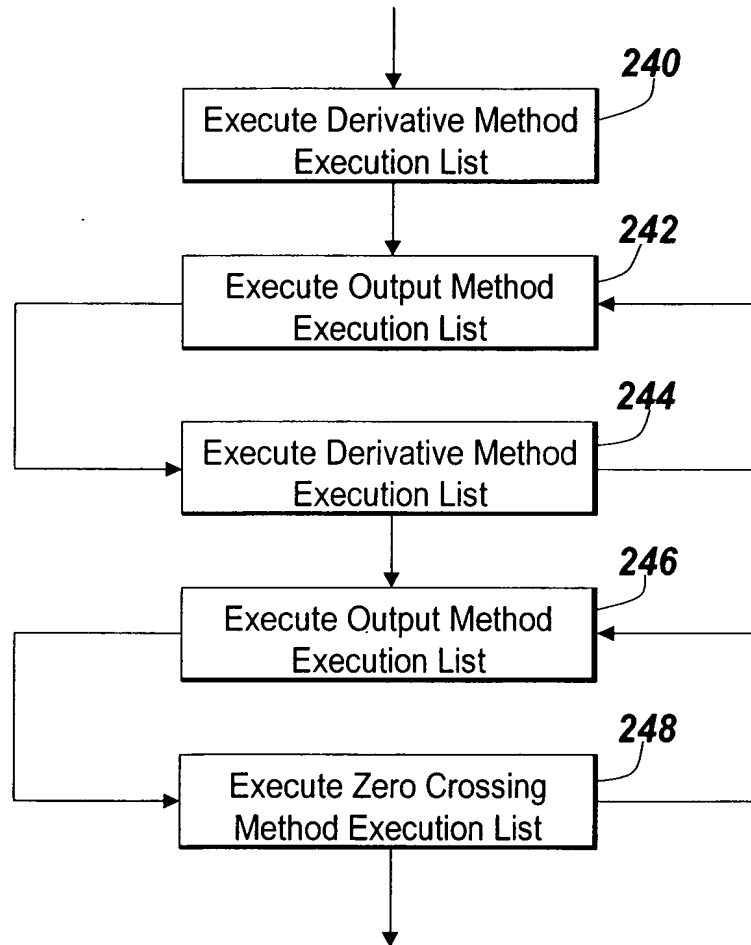


Fig. 14
(prior art)

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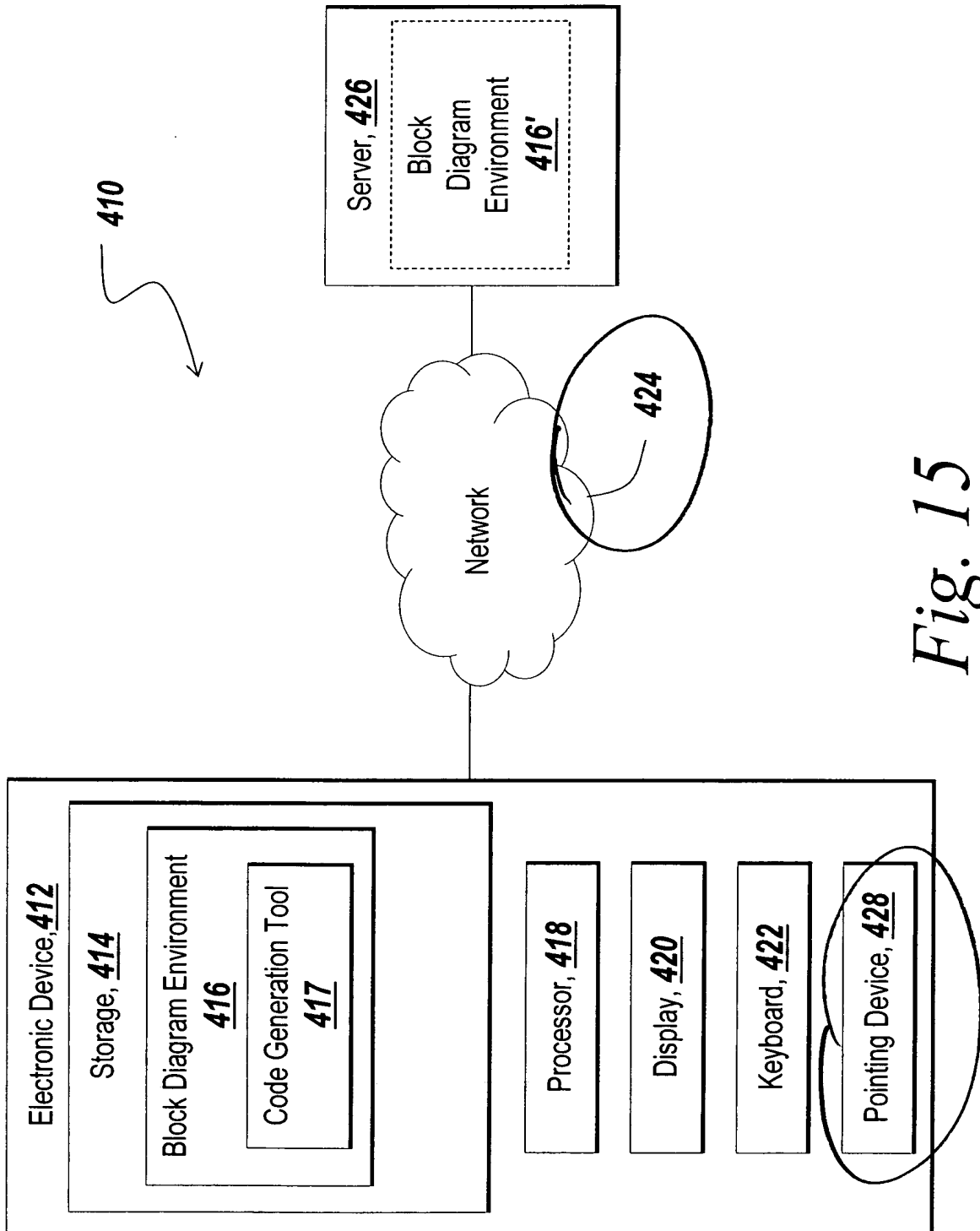


Fig. 15